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Notes on *Cordylus macropholis*  
Boulenger

SUMMARY

The known range of *Cordylus macropholis* is extended 200 miles south by the discovery of the species at Lamberts Bay. The descriptions in the literature are reviewed and revised.

INTRODUCTION

During the Port Elizabeth Museum Collecting Expedition (1964) to Little and Great Namaqualand, four specimens of *Cordylus macropholis* were collected at Lamberts Bay. There were kept alive and exhibited in the Snake Park where one female subsequently gave birth to a single young on 17.5.65.

*Cordylus macropholis* has been described in the literature on the basis of nine specimens. The Type, S. A. M. No. 434 is still in the South African Museum but the collector, exact locality and date of collection are now known. In the Museum Catalogue, No. 434 is listed as *Pachydactylus maculatus*. How aquired; "no history", locality: "Namaqualand". In the left hand margin of the page, next to the number, is written in pencil "under this number is a Zonurus probably new", followed by an illegible squiggle and then "39a". Under remarks, in pencil is written "Type of *Zonurus macropholis* Boul." In his original description Boulenger (1910) changed the Type locality to "Little Namaqualand."

The date at the top of the page is 3.9.96; this is probably the date on which the specimen was catalogued but not when it was collected. It is therefore likely that it was collected some time before or during 1896 but was not described by Boulenger until 1910. There does not appear to be any *Pachydactylus maculatus* in the Museum numbered 434, nor is the species known from Namaqualand.

FitzSimons (1943) mentioned that there are specimens in the Natal, Kimberley and Transvaal Museum collections, while Loveridge mentions three in the Field Museum of Natural History. Five were found in the Kimberley Museum and one in the Transvaal Museum. No specimen can be traced in the Natal Museum (Pringle, personal communication) and the specimens in the Field

Museum of Natural History are presumably still there.

The authors were therefore able to examine twelve specimens: The Type, S.A.M. No. 434 from Namaqualand; T.M. No. 18,449 from Kleinsee, collected Feb. 1935; five in K.M. (not catalogued but numbered 1-5 for the purposes of this paper) also from Kleinsee, collected by F.C. Wecke and R. Orpen - dates unknown. The remaining five are the four live adults from Lamberts Bay, plus the young individual born on 17.5.65 (P.E.M. No. 1501/26).

Reviewing the literature: Boulenger (1910), Power (1933), FitzSimons (1943) and Loveridge (1936) and (1944) it appears that there is some confusion about the preocular scalation.

Boulenger (1910) in the original description mentions an "anterior loreal" but makes no mention of a preocular. Power (1933) describes a loreal and a postnasal but, as Loveridge (1944) rightly points out, Power's "loréal" is a preocular and his "postnasal" a loreal. FitzSimons (1943) states that there is only a loreal as shown in his figure 358, while Loveridge (1944) notes both a loreal and a preocular. The Type S.A.M. No. 434 has a loreal and a preocular on the left side and only a loreal on the right. T.M. 18,994 has only a loreal on both sides. In the four live adults from Lamberts Bay and the juvenile P.E.M. No. 1501/26 and the K.M. 1, 2 and 3, all have a loreal and preocular on both sides. K.M. 4 has only a loreal on the left and both on the right. K.M. 5 has a loreal on the left while the right side is too badly damaged for examination. It is therefore clear that this is a variable character and either a loreal alone or a loreal and preocular may be present.

Similar discrepancies also exist in the descriptions of the ventral scales. Boulenger (1910) describes the ventrals as "smooth, quadrangular, the outer pointed behind in 10 longitudinal and about 20 transverse series." Power (1933) describes the ventrals as "quadrangular, in 9 or 10 longitudinal series, strongly keeled and mucronate, excepting the 2 or 4 central series." FitzSimons (1943), "ventrals imbricate, quadrangular, a little broader than long, inner rows obtusely keeled, while outer rows are strongly keeled and mucronate, in 19-20 regular transverse and 10 longitudinal series." Loveridge (1944) describes the ventrals as "quadrangular, smooth, strongly imbricate, the lateral strongly keeled and shortly mucronate."

Examination of all the available specimens shows that the Type has ventrals smooth, quadrangular, imbricate and slightly broader than long except the 3 outer rows which are longer than broad, keeled and mucronate, the first four transverse rows from the forelimbs posteriorly are keeled and mucronate, progressively more so anteriorly until they meet the strongly keeled and mucronate throat scales. In T.M. 18, 449, K.M. 1 and the juvenile P.E.M. 1501/26, the description of the ventrals given by FitzSimons (1943) is correct. In K.M. 2, 3, 4 and 5 and the four P.E.M. adults, the ventrals are smooth, imbricate, quadrangular, broader than long, with 1 or at the most 3 outer rows keeled and mucronate. The ventrals should therefore be described as imbricate,

smooth or keeled, quadrangular, some or all mucronate. In this connection it is worth noting that in the juvenile P. E. M. 1501/26, the ventral keeling differs from that of its parent.

Due to the above and other discrepancies in the published descriptions, obviously due to paucity of material, the following description of the species is given based on the 12 available specimens.

#### DESCRIPTION

Head scales all heavily rugose. Rostral five-sided, much broader than high. Frontonasal quadrangular, as long as broad or broader than long, separated from the rostral and frontal, narrowly separated or just meeting loreal at a point on sides. Nasals in good median contact, not or slightly swollen. Nostril pierced in infero-posterior part of nasal and directed outwards. Prefrontals in short or long median contact. Frontal hexagonal, more than or less than twice as long as broad, broader anteriorly than posteriorly. Frontoparietals longer than or as long as broad. Interparietals between the two pairs of parietals, tetragonal, elongated anteriorly sometimes separating anterior parietals, which are longer than posterior.

Three to six occipitals, keeled, sometimes strongly so and pointed behind but never nearly so elongated as dorsals. Temporals strongly keeled, largest and shortly mucronate posteriorly. A single loreal or a loreal and preocular present. Two suboculars not bordering lip. Four or five upper labials, the largest posterior upper labial keeled. Three or four supraciliaries.

Mental five-sided, five lower labials, the third and fourth moderately keeled, the fifth strongly keeled and elongated. Five large sublabials, the fourth (largest) and the fifth strongly keeled and mucronate, all five carinated. A group of small obtusely or strongly keeled elongated chin shields between the second and third pairs of sublabials. Gulars large, imbricate strongly keeled and mucronate posteriorly. Ventral neck scales similar but much larger. Lateral neck scaling strongly keeled, raised and sometimes denticulate as well as mucronate.

Dorsal scales large, rugose, strongly keeled, mucronate and denticulate on the posterior edge, raised forming 14 to 18 regular longitudinal ridges. Fourteen transverse rows middorsally between the lateral folds. Dorsolaterally the scales are generally more spinose.

Ventrals imbricate, smooth or keeled, quadrangular with some or all mucronate, in 10 longitudinal and 19-20 transverse rows.

A pair of enlarged smooth quadrangular preanal plates. Posteriorly laterally to the vent is a laterally situated enlarged conelike, spinose, scale directed outwards. Tail composed of whorls of large elongate, rugose, strongly keeled, denticulate and mucronate scales, keels strongest superolaterally.

Limbs above, scales keeled, imbricate and mucronate, those on hind legs raised. Below, smooth or keeled and mucronate. Soles of feet spinose as are subdigital scales.

### COLOUR

Pale grey with large irregular markings of dark grey dorsally and laterally. Head dark grey speckled with pale grey. Ventrally pale grey. Tail dark grey above, pale grey below. Upper and lower labials pale grey with darker spots becoming more numerous posteriorly until the fourth or fifth labials which are almost entirely darker greyish brown.

### HABITS

The Lamberts Bay specimens were collected on the coastal scrub-covered dunes within a quarter of a mile from the sea. They were found both at the northern and southern edges of the town. FitzSimons (1943) stated "it is said that they live in holes in the sand, and certainly, their general cylindrical form would appear to preclude a rock-living habit." The four kept at the Snake Park have made no attempt to burrow but hide behind logs etc. in their display case. They were caught among dead sticks and leaves accumulated under shrubs (see Plate I); also under empty cement pockets and pieces of corrugated asbestos lying among the scrub. They are very shy, scuttling off at the slightest sign of danger and due to their colouration are very difficult to detect among the greyish twigs and dead leaves.

This shyness probably explains the paucity of specimens collected even from a densely populated area such as Lamberts Bay. They are moreover, quick-moving and by no means easy to catch particularly when they seek refuge in the massed twigs and leaves accumulated under the dry coastal bushes. The four in captivity have never been seen to drink from their water dish but lap up drops of water if sprayed into the case.

As with other species of *Cordylus*, this species is ovoviparous, one young being born in the Snake Park on 17.5.65., while a female, K.M. No. 3 was found to contain two fully developed young. The juvenile born in Port Elizabeth measured 6.58 cm. (H. & B. 3.64, tail 2.94) at birth and weighed 1.5 grams. On 11.6.65 it still weighed 1.5 gms. but measured 7.18 cms. total length (H. & B. 3.68, tail 3.5). At its death on 18.7.65 it measured 7.27 cms. total length (H. & B. 3.77, tail 3.5).

The discovery of four specimens at Lamberts Bay extends the known range of *Cordylus macropholis* approximately 200 miles south as they were previously only recorded from Kleinsee. It is probable that they occur throughout the coastal sand dunes between these two localities.

### ACKNOWLEDGEMENTS

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